CLAIM LISTING

1. (Original) A method for controlling a multiple cylinder internal combustion engine, the method comprising:

determining a difference between a first parameter value generated by a control system for the internal combustion engine and a second parameter value determined by a control system monitor;

applying a weighting factor to the difference to generate a weighted difference; and

controlling the engine based on the weighted difference.

2. (Original) The method of claim 1 wherein the first and second parameter values represent engine torque.

3. (Original) The method of claim 1 wherein the second parameter value is estimated based on at least engine speed, barometric pressure, and mass airflow.

4. (Original) The method of claim 1 wherein the step of applying a weighting factor comprises determining a weighting factor based on the difference between the first and second parameter values.

5. (Currently Amended) ~~The method of claim 1 wherein the step of applying a weighting factor comprises determining a weighting factor~~ A method for controlling a multiple cylinder internal combustion engine, the method comprising:

determining a difference between a first parameter value generated by a control system for the internal combustion engine and a second parameter value determined by a control system monitor;

applying a weighting factor to the difference to generate a weighted difference, the weighting factor based on a ratio of the first and second parameter values; and

controlling the engine based on the weighted difference.

6. (Currently Amended) The method of claim ~~1~~ 5 wherein the step of applying a weighting factor further comprises determining a weighting factor

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based on a rate of change of the difference between the first and second parameter values.

7. (Original) The method of claim 1 wherein the step of applying a weighting factor comprises determining a weighting factor based on a ratio of the first and second parameter values and a rate of change of the difference between the first and second parameter values.

8. (Currently Amended) The method of claim ~~7~~ 6 further comprising:
integrating the weighted difference, wherein the step of controlling the engine includes selecting an alternative control strategy when the integrated weighted difference exceeds a corresponding threshold.

9. (Currently Amended) The method of claim 1 wherein the step of determining a difference comprises determining a second parameter value by estimating the second parameter value based on inputs from a plurality of sensors ~~inputs~~.

10. (Currently Amended) The method of claim 9 wherein the first and second parameter values represent engine brake torque and wherein the inputs from a plurality of sensors ~~inputs~~ includes a mass airflow input and a barometric pressure input.

11. (Original) The method of claim 10 wherein the barometric pressure input is generated by a manifold absolute pressure sensor.

12. (Original) The method of claim 10 wherein the barometric pressure input is generated by a barometric pressure sensor.

13. (Original) The method of claim 10 wherein the barometric pressure input is generated by an inference based on throttle position, engine speed, cam position and measured airflow.

14. (Original) The method of claim 1 wherein the step of applying a weighting factor comprises applying a weighting factor to attenuate differences between the first and second parameter values associated with measurement variability of at least one engine sensor.

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15. (Original) The method of claim 1 wherein the step of controlling the engine comprises implementing an alternative control strategy when the weighted difference exceeds a corresponding threshold.

16. (Currently Amended) A method for controlling a multiple cylinder internal combustion engine, the method comprising:
    determining a difference between a first parameter value generated by a control system for the internal combustion engine and a second parameter value determined by a control system monitor;
    applying a weighting factor to the difference to generate a weighted difference; and
~~The method of claim 1 wherein the step of controlling the engine comprises~~
    implementing an alternative control strategy when a statistical calculation based on a history of the weighted difference exceeds a corresponding threshold.

17-24 (Cancelled).

25. (New) The method of claim 16 wherein the first and second parameter values represent engine torque.

26. (New) The method of claim 16 wherein the second parameter value is estimated based on at least engine speed, barometric pressure, and mass airflow.

27. (New) The method of claim 16 wherein the step of determining a difference comprises determining a second parameter value by estimating the second parameter value based on inputs from a plurality of sensors.

28. (New) The method of claim 16 wherein the first and second parameter values represent engine brake torque and wherein the inputs from a plurality of sensors include a mass airflow input and a barometric pressure input.